

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004204**Date Inspected:** 01-Oct-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhang Bao**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Assembly**Summary of Items Observed:**

This report serves to document the events occurring on this date at the following location. Caltrans Quality Assurance (QA) Inspector Robert Vatcher arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

OBG Assembly Bay II

Mid bay- Cleaning of back gouge diaphragm plate to deck panel CJP continues.

Crack repairs continue on deck panel U-rib PJP welds.

FCAW tacking & alignment operation between DP4307-001 & DP4334-001.

Deck panel wastage removal by oxy-acetylene flamed cutting process at DP324-001 & DP3432-001.

Diaphragm plate alignment operation at DP015-001

Diaphragm plate to diaphragm plate joining operation at DP076-001 and DP038-002 by welding operator He Junrong.

5BW- QA arrived to monitor welding operations as ZPMC QC personnel Wu Shi Gao was present. QA was

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apprised of the situation and no welding operation was going to be performed at LD004-001. However QA was told that tack welding of LD004-001 to the associated bottom plate was performed last evening. QA observed that the tack welds were welded over dirt, debris and dried ultrasonic testing (UT) couplant as the tack welds appears to have this detritus directly surrounding the tack welds. QA was told that this was not the case and that the ZPMC QC definitely had the areas cleaned prior to tacking.

4BW- Side plate stiffener welding being performed at SP049-001-039. QA examined joint preparation prior to welding which had intimate contact between the stiffener and side plate.

North OBG Sub-Assembly Outside Yard

QA was tasked with performing welding operation monitoring at locations where deck panel plates are being joined to deck panels specifically DP391-001 for initial deck panel production in the complete joint penetration location. QA observed for this operation the FCAW process utilizing 1.4 mm diameter Supercored 71H E71T-1 electrode wire in DCEP mode. Welder jiang Tingguang 062265 , a qualified welding operator was observed as well utilizing a narrow stringer bead method for this evolution in the root pass per the welding procedure specification WPS-B-T-2231-B-U2-F. QA measured amperage to be 302 (average), voltage at 29.8 to 30.1 and a travel speed of approximately 315 mm per minute however utilizing a narrow weave bead method which is inside of the WPS allowable parameters. The joint was cleaned prior to re-depositing weld metal by grinding the start/ stop area.

The above mentioned items as observed, corrected by contractor QC & documented by QA appear to conform to the contract documents.

Summary of Conversations:

No relevant conversations this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco 138-1694-2685, who represents the Office of Structural Materials for your project.

Inspected By:	Vatcher,Robert	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
